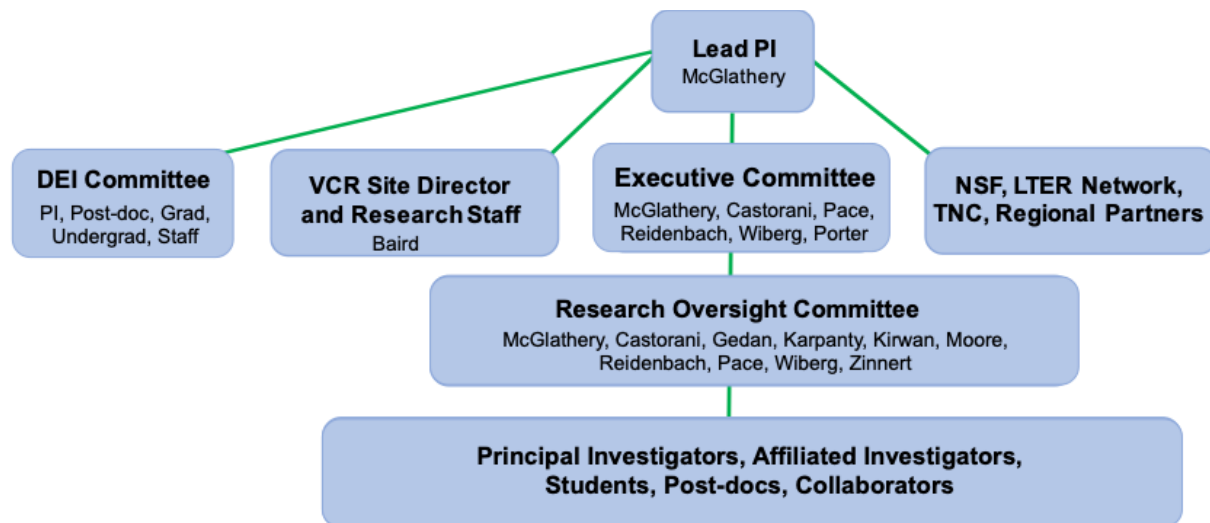


VCR Governance

Governance and Administration – The governance and administration of the VCR LTER involves a Lead Principal Investigator (PI), Executive Committee, Research Oversight Committee, and Committee-of-the-Whole (Fig. 1). Overall direction of the program is provided by the Lead PI. The Lead PI also is the corresponding PI for interactions with NSF, the LTER Network Office and LTER Science Council, and regional partners. The Executive Committee, consisting of the Lead PI and other signatory PIs, have the primary decision-making responsibilities for the project, with the Lead PI having the final decision on issues related to funding, research, partnerships and personnel.

The Lead PI is responsible for project communication, including timely annual reports to the NSF, facilitating the annual scientific meeting, inter-site and international activities, and long-term research planning. The Research Oversight Committee consists of the Executive Committee and PIs who serve as group leaders for specific research areas and for project information management. For each area, we partner ecological and physical scientists who represent field research and modeling. This committee is critical to the project integration, and works together with the Lead PI and Executive Committee to coordinate efforts to plan research activities, prepare annual reports, research presentations, mid-term reviews and renewal proposals. All PIs, Affiliated Investigators, students, and staff participate in “Committee-of-the-Whole” discussions on the research agenda, education and outreach. Affiliated Investigators use the VCR LTER site and data for supplemental projects, but are less engaged in core research.



VCR Project participant roles and associated responsibilities

All PIs and their graduate students are required to submit annual reports documenting research activities, findings, publications, and to upload datasets within two years of collection pursuant to the LTER Network Data Access Policy.

Principal Investigators

The VCR LTER is committed to maintaining continuity of experience that is critical to a long-term research program, and at the same time involving new faculty based on research needs as the program evolves. We are especially committed to involving early-career faculty and diversifying our research team. There are currently 18 Principal Investigators from 8 institutions who have been involved in the VCR LTER for varying periods of time.

PIs are responsible for specific project deliverables outlined in the VCR LTER proposal. They are expected to engage in research design and execution, and play central roles in the writing of proposals, annual reports, and participating in the mid-term review. All PIs advise graduate students who participate in VCR LTER research. PI transitions typically occur at the time of project renewal. This includes reappointment of current PIs, addition of new PIs based on their potential to contribute to proposed research, and transition of some veteran PIs to Affiliated Investigator status. Recommendations for addition of new PIs will be made by project PIs to the Lead PI and Executive Committee, and justified based on research needs developed in proposal, with final decisions made by the Lead PI (see Governance section).

Affiliated Investigators

Affiliated Investigators are researchers conducting approved work linked to the VCR proposal. They are not responsible for proposed project deliverables and are not awarded subcontracts. They may request in-kind support from the VCR LTER, including UVA Coastal Research Center (CRC) fees for housing, lab use, and boating. Affiliated Investigators are invited to participate in the annual All Scientist Meeting and may be eligible to mentor an REU funded by the VCR. Affiliated Investigators are identified and nominated by PIs; decisions are made by the Lead PI in consultation with the Executive Committee. Some may transition to PI status in a subsequent funding cycle if their work is deemed central to VCR research goals.

Graduate Students

Graduate education and scientific training is a cornerstone of the VCR. In a typical year, over 30 graduate students (Ph.D. and M.S.) students participate in VCR research outlined in the proposal. Students are selected by the PI who will be their advisor. Graduate students supported by VCR research assistantships are expected to contribute to VCR research themes. Graduate researchers are required to publish their research findings within two years of graduation. Beyond this point, their PI advisor has the responsibility to publish the research. M.S. students should plan on defending a thesis and graduating in 2 to 2.5 years, and Ph.D

students should defend their dissertation in 5 years. Graduate student theses must be posted on the VCR LTER website upon completion. Although not an expectation, graduate students have the opportunity, after consultation with their advisor, to work on VCR outreach and education initiatives as mentors of undergraduate students and K-12 teachers, and to participate in local outreach activities.

All graduate students who are supported by the VCR LTER are expected to contribute to research activities beyond the scope of their thesis projects. These activities may include fish sampling, seagrass synoptic sampling, marsh end-of-year biomass sampling, water quality sampling, and other long-term data collection campaigns. Beyond benefiting the LTER program, participation is intended to provide a holistic learning environment for students to understand the broader ecological system. Student participation in such activities will vary based on project needs and student progress towards their degree, and will be determined in consultation with their advisors, VCR LTER leadership, and UVA CRC staff. Efforts will be made to ensure the work is spread as equitably as possible for all members receiving funding and resources from the VCR LTER.

It is expected that the majority of graduate students funded to conduct research with the VCR LTER will spend significant portions of the summer months in attendance at the Coastal Research Center.

Research Support Staff

VCR LTER research support staff based at the UVA CRC maintain research support infrastructure, conduct collaborative research with VCR scientists/students, support logistics to and from research sites, provide integration of GPS surveys (both kinematic and static) and unoccupied aerial system (drone) data collection, and assist with laboratory use. They also help upkeep core datasets and assist with data quality control. Staff are trained in first aid, boating safety, bystander intervention, and mental health first aid. Staff are hired through UVA (the administering institution). Staff positions are advertised broadly (on the Eastern Shore and through scientific platforms); hiring committees always include the lead PI and station director. The station director keeps an updated list of targeted advertising avenues.

Staff support VCR LTER research and ensure safety. Staff collect data in collaboration with VCR LTER researchers, maintain data streams from automated sensors and conduct regular field campaigns (e.g., quarterly water quality data collection). For PI-led projects, a member from that lab group (PI or graduate student) must be present to assist with data collection. Staff prioritize helping with technology used intermittently by many researchers across the LTER, such as Trimble GPS and drones. When accessing field sites by boat, staff's primary role is to ensure safety of researchers and the boat/equipment. The staff member driving the boat remains near the boat. They can be expected to assist with sampling occurring from or near (within sight and sound) of the boat. Research support needed away from the boat requires an explicit request for staff assistance so that one staff member can stay with the boat while the other accompanies the researchers.

Allocation of resources and support

Research support via LTER grant

The LTER core grant covers the lab, housing, and boat expenses of all PIs and students at the CRC that are conducting LTER-related research; affiliated investigators may request support for CRC expenses. A number of undergraduates (2–5 each year) are supported during the summer as REU students. UVA PIs are supported primarily through graduate student funding, travel, and research supplies. Requests for student support should be made to the Lead PI, and funds are allocated based on need and research priorities. Subcontracting PIs are allocated funds based on their participation in core research activities, with the goal that student support be prioritized. At the time of the mid-term review, allocation of funds to UVA and subcontracting PIs is evaluated and adjustments made if needed, depending on research productivity and priorities for the second half of the grant cycle. All funding decisions are made by the Lead PI, in consultation with the Executive Committee.

Research support via the UVA CRC

During peak research season, from April through October, a set of processes are used to triage research support requests. Annually in March, PIs and students are asked for an overview of their research plans and support needs for the season. Their responses are compiled into a summer overview by the station director. The overview is shared with PIs by late March, in part to help the community collectively adjust plans if there are foreseeable limitations of summer resources (e.g. annual sampling projects set for overlapping dates or student projects that assume more access to boats than is feasible). Reservations are invited once this plan has been shared and reviewed by PIs. The UVA CRC public calendar provides real time information about station use and space, boating, and staff availability.

Boat trips

Boating occurs between sunrise and one hour before sunset on weekdays; conditions that further restrict boating are outlined in the CRC boating manual. Boats are operated by both seasonal drivers and LTER support staff; skilled staff support is preferentially provided on boat trips hosting those most in need of their expertise, such as REUs, new students, or those needing technology support. Students and PIs working in lagoons at the VCR for more than two years are eligible to be trained as boat drivers; two certified drivers are required on every non-staff-run boat trip.

Staff aim to approve boat trips soon after receiving reservation requests, but at least two weeks before requested trips. Reservations may not be approved if submitted less than 48 hours before the target date. In the busy season, known sampling needs from visitors will be approved as early as possible. To accommodate the shifting schedules and continual research needs of those living on site all summer, two boats are held in reserve for week-of scheduling. This number may be adjusted to reflect the proportion of VCR community members living on site each season. This approach helps alleviate some of the burden of rescheduling as weather and fieldwork plans can quickly

change. During the academic year, a limited number of weekend trips can be scheduled in advance to meet time-sensitive research needs. All other research trips happen during the normal boating hours.

CRC housing

Housing is first allocated to those who need to reside on site throughout the summer, including REUs, graduate students, and occasionally research support personnel. We work to keep one multi-room suite (or at least a wing of one suite) and the accessible suite open for rotating short-term visits (vs. longer-term residents). Among short-term visits, those coming to complete core annual/long-term sampling efforts are prioritized. Ecologically or technologically time-sensitive visits are the next priority (e.g., to gather sensors before batteries die or to capitalize on time-sensitive events). Equitable access is also considered.

A limited number of off-site accommodations (hotels, housing with regional partners) are provided when requests cannot be met on site; these are supported at the discretion of the Lead PI.

During the “off season” between October and March, use of the CRC also requires approval. Research support needed to maintain continuous data flows or sampling series are prioritized.

Information

An annual orientation is provided for all new station users. Associated training details are provided in the Field Inclusion Plan. Information resources are shared on the UVA CRC and VCR LTER websites. Training and documentation requirements for UVA CRC use and field research are included there. A field safety planning tool, shared via the websites, is pre-populated for overall project work, with subfields highlighted for completion by each research group. Field safety plans for each major ecosystem zone are discussed with project personnel in virtual meetings each spring before the field season.

The UVA CRC reservation website is a valuable resource for knowing who is onsite and in the field and serves as the formal float plan for field excursions. It is well maintained and updated regularly. The website includes individual user profile information and required documentation. All staff, and the lead PI and information manager - who are based off site, can view this information as needed or in case of emergency. For safety and planning purposes, float plans are public-facing, but housing use is not.